Pest Alert

United States
Department of
Agriculture

Forest Service

Northeastern Area
Region 8

NA-PR-05-92

Hemlock Looper

The hemlock looper *Lambdina fiscellaria* is a defoliating insect native to North America. It occurs in the eastern United States from Maine to Georgia and west to Wisconsin. The larvae can be extremely destructive to hemlock, balsam fir, and white spruce. During an outbreak it will also feed on many other species including: larch, red and black spruce, cedar, jack pine, paper and yellow birch, basswood, maple, elm, and wild cherry. Hemlocks may die after one year of severe defoliation, fir in one or two years.

Larvae are very mobile. They may reach 1.25 inches in length at maturity.

Hemlock looper moths are tan to grayish-brown in color and have a wingspan of approximately 1.25 inches. The female lays her tiny eggs on a variety of substrate throughout the forest from August to October. After overwintering in this stage the eggs hatch from late May to mid-June. The larvae feed initially on new foliage but quickly move to old foliage. They return to the new foliage only when the old foliage is depleted. High populations can remove nearly all the new and old needles in a single season.

Adult moths are active from late summer through fall.

This looper is a wasteful feeder, often nipping only a small part of a needle before moving to another. As these needles dry out they change color and along with the exposed twigs, result in a reddish-brown color characteristic of an infested stand. Often a mat of clipped needles collects under the tree.

Characteristic notching of needles by the larvae.

Larval damage on white spruce and hemlock.

Another looper, *L. athasaria* may cause similar damage on hemlock. It closely resembles *L. fiscellaria* in all of its life stages making identification between the two species very difficult. *L. athasaria* overwinters in the pupal stage. Damage by the larvae is later in the summer.

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